

**USE OF MULTIVALENT CHIMERIC PEPTIDE-LOADED,
MHC/IG MOLECULES TO DETECT, ACTIVATE OR SUPPRESS
ANTIGEN-SPECIFIC T CELL-DEPENDENT IMMUNE RESPONSES**

ABSTRACT OF THE DISCLOSURE

5 To increase the effective affinity of soluble analogs of peptide/MHC
molecules for their cognate ligands, divalent peptide/MHC complexes were
constructed. Using a recombinant DNA strategy, DNA encoding the MHC
class I was ligated to DNA coding for murine Ig heavy chain. MHC/Ig
complexes were exploited to homogeneously load with peptides of interest.
10 The results of flow cytometry demonstrated that the ^{Pcp}MHC/Ig complexes
bound specifically with high affinity to cells bearing their cognate receptors.

^{Pcp}MHC/Ig complexes are also useful in modulating effector functions of
antigen-specific T cells. These ^{Pcp}MHC/Ig complexes are useful for studying
TCR/MHC interactions and lymphocyte tracking and have uses as specific
15 regulators of immune responses.